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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Army										Date: May 2017		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0603766A I Tactical Electronic Surveillance System - Adv Dev							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	17.562	15.730	27.733	-	27.733	32.340	36.742	30.894	31.838	Continuing	Continuing
907: Tactical Exploitation Of National Capabilities-MIP	-	17.562	15.730	27.733	-	27.733	32.340	36.742	30.894	31.838	Continuing	Continuing

Note

All funding is in support of the ACTIVE COMPONENT

A. Mission Description and Budget Item Justification

The Tactical Exploitation of National Capabilities (TENCAP) program serves as the Army's centralized lead to perform National Intelligence cross-agency engineering to evaluate, enhance, prototype, and transition Intelligence, Surveillance, and Reconnaissance (ISR) technologies/capabilities developed by Science and Technology (S&T) and other activities across the National Intelligence Community (IC) into Army systems and architectures. TENCAP (1) ensures continued access to current National and Theater sensors and supporting tactical architectures; and (2) exploits new developments that focus on improving the analysis and tasking, collection, processing, exploitation, dissemination and feedback (TCPEDF) of intelligence data. This includes efforts to: (1) shorten targeting timelines down to Platoon level; (2) enhance target identification; (3) provide better target location (accuracy); (4) provide continued coverage of a target; and (5) develop in-theater analytic tools to enable data exploitation in near-real-time support to contingency operations.

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	13.472	15.730	20.595	-	20.595
Current President's Budget	17.562	15.730	27.733	-	27.733
Total Adjustments	4.090	0.000	7.138	-	7.138
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	4.090	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	0.000	0.000	7.138	-	7.138

Change Summary Explanation

Fiscal Year (FY) 2016 increase is a result of Above Threshold Reprogramming (ATR) (April 16-20 PA) in support of EUCOM Joint Urgent Operational Needs Statement (JUONS)/USAEUR Operational Needs Statement 16-21429. Funds were required to provide Army Tactical Exploitation of National Capabilities (TENCAP) risk mitigation in support of Air Vigilance for the U.S. European Command (EUCOM) Area of Responsibility (AOR).

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<p>Fiscal Year (FY) 2018 increase is a result of a funds realignment to support New Signal Development in Air Vigilance (AV) and development of Advanced Miniaturized Data Acquisition System (AMDAS) Next.</p>		

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Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603766A / Tactical Electronic Surveillance System - Adv Dev				Project (Number/Name) 907 / Tactical Exploitation Of National Capabilities-MIP			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
907: Tactical Exploitation Of National Capabilities-MIP	-	17.562	15.730	27.733	-	27.733	32.340	36.742	30.894	31.838	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

All funding is in support of the ACTIVE COMPONENT

A. Mission Description and Budget Item Justification

The Tactical Exploitation of National Capabilities (TENCAP) program serves as the Army's centralized lead to perform National Intelligence cross-agency engineering to evaluate, enhance, prototype, and transition Intelligence, Surveillance and Reconnaissance (ISR) technologies/capabilities developed by Science and Technology (S&T) and other activities across the National Intelligence Community (IC) into Army systems and architectures. TENCAP (1) ensures continued access to current National and Theater sensors and supporting tactical architectures; and (2) exploits new developments that focus on improving the analysis and tasking, collection, processing, exploitation, dissemination and feedback (TCPEDF) of intelligence data. This includes efforts to: (1) shorten targeting timelines down to Platoon level; (2) enhance target identification; (3) provide better target location (accuracy); (4) provide continued coverage of a target; and (5) develop in-theater analytic tools to enable data exploitation in near-real-time support to contingency operations.

FY2018 Base funding in the amount of \$27.733 million provides for: (1) engineering and collaborative development on multiple validated National Intelligence Community (IC) advanced developments to ensure continuous Army interoperability with those IC assets and architectures; (2) advanced development of more effective intelligence collection, processing, exploitation and dissemination (PED); (3) Advanced Miniaturized Data Acquisition System (AMDAS) 'Next' sensor development; and (4) advanced development of signal capabilities for Air Vigilance (AV) Army Program of Record.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2016	FY 2017	FY 2018
Title: TENCAP Cross-agency Core Engineering activities	13.043	11.109	15.836
Description: Collaborate, develop and exploit emerging multi-intelligence and Space-based technologies to satisfy/accelerate Army Intelligence, Surveillance, Reconnaissance (ISR), Mission Command and Force Protection requirements.			
FY 2016 Accomplishments: Identified Army requirements in National developments; Ensured Army maintained access to sensors and Space-based capabilities; Monitored emerging technologies and systems; Exploited advances in commercial imagery and signal technologies; Developed prototypes that improved Army intelligence products.			
FY 2017 Plans:			

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Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603766A / Tactical Electronic Surveillance System - Adv Dev	Project (Number/Name) 907 / Tactical Exploitation Of National Capabilities-MIP		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
Identify Army requirements in National developments; Ensure Army maintains access to sensors and Space-based capabilities; Monitor emerging technologies and systems; Exploit advances in commercial imagery and signal technologies; Develop prototypes that improve Army intelligence products. FY 2018 Plans: Incorporate Army requirements into earliest stages of National developments; Ensure Army access to sensors and Space-based capabilities; Monitor emerging technologies and systems; Exploit advances in commercial imagery and signal technologies; Develop prototypes that improve Army intelligence products.					
Title: Air Vigilance - Advanced Development Description: Enhance intelligence, force protection, and indications and warning capabilities under Army TENCAP program. FY 2016 Accomplishments: Advanced signal development and enhancements for Air Vigilance (AV) Army Program of Record ingest and continued effectiveness. FY 2017 Plans: Advance signal development and enhancements for Air Vigilance (AV) Army Program of Record ingest, and continued effectiveness as additional sensors are fielded per basis of issue plan. FY 2018 Plans: Advance signal development and software enhancements for Air Vigilance (AV) Army Program of Record, and other similar follow-on prototype systems.			0.515	0.530	5.802
Title: Advanced Miniaturized Data Acquisition System(AMDAS)/ AMDAS Dissemination Vehicle (ADV) Description: AMDAS/ADV: Continued advanced engineering and development efforts to ensure continued interoperability and effectiveness of Army Corp-level TENCAP subsystems that provide national data to the tactical warfighter via intelligence community partners classified national systems. FY 2016 Accomplishments: AMDAS/ADV: Advanced sensor development and prototyping of TENCAP subsystems via new antenna studies and development of new ground station requirement and operational concepts to ensure alignment with national architecture enhancements as the National Technical Means (NTM) space-based capabilities progress FY 2017 Plans:			4.004	4.091	6.095

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B. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
AMDAS/ADV: Advance sensor development and prototyping of TENCAP subsystems to ensure alignment with evolving national architectural enhancements as the National Technical Means (NTM) space-based capabilities progress.												
FY 2018 Plans: AMDAS Next: Advance sensor development and prototype TENCAP subsystems new antenna, and design ground processor, to ensure alignment with evolving national architectural enhancements as the National Technical Means (NTM) space-based capabilities progress.												
Accomplishments/Planned Programs Subtotals										17.562	15.730	27.733
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• 0605766A RDTE: <i>National Integration To Tactical Systems (MIP), 0605766A</i>	10.599	4.955	6.882	-	6.882	9.804	10.033	8.104	11.066	Continuing	Continuing	
• W60001 OPA: <i>Air Vigilance (AV), OPA2 (W60001)</i>	8.224	0.733	5.348	-	5.348	6.497	6.953	5.169	8.530	Continuing	Continuing	
• 122011 OMA: <i>Contractor Logistics Support and Other Weapon Support, OMA 122011</i>	-	-	2.029	-	2.029	2.070	2.111	2.153	2.196	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
The Army Tactical Exploitation of National Capabilities (TENCAP) mission is a Congressionally mandated and chartered enduring requirement to leverage National intelligence capabilities useful to the tactical Army. The Army TENCAP acquisition strategy is driven by an annual TENCAP General Officer Steering Group (TGOSG), co-chaired by the Army G2; Army G8; and the Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology [ASA(ALT)]; and includes representatives from the Army G3; Army G6; Army Training and Doctrine Command (TRADOC); and the Program Executive Office for Intelligence, Electronic Warfare and Sensors (PEO IEW&S). The TGOSG reviews, validates, prioritizes, and guides Army TENCAP efforts, according to Army and Defense strategy. Based on this TGOSG guidance, Army TENCAP invests BA 6.4 RDTE in Intelligence Community (IC) developments during the more cost-effective advanced development phase to ensure Army requirements are met with minimal redundancy. Army TENCAP then uses BA 6.5 RDTE to manage the transition of these advanced development efforts through system development and integration into Army Programs of Record (POR). This strategy ensures these leveraged investments remain viable through multiple budget cycles, significantly increasing successful transition to recipient Army POR. With acquisition discipline and oversight provided by PEO IEW&S, Army TENCAP executes the TGOSG approved efforts through use of multiple contracts and agreements with the military, National agencies, Labs, Industry Partners and Academia for the full duration required to complete development and transition these National capabilities into enduring Army programs.												

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E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Army												Date: May 2017			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603766A / Tactical Electronic Surveillance System - Adv Dev				Project (Number/Name) 907 / Tactical Exploitation Of National Capabilities-MIP					
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Intelligence Engineers (SETA)	C/ FFPLOE	TASC, Inc : Alexandria, VA	10.853	3.563	Jul 2016	4.115	Feb 2017	4.200	Feb 2018	-		4.200	Continuing	Continuing	Continuing
Intelligence Engineers(Matrix Gov)	MIPR	AGC : Alexandria, VA	3.775	1.028	Nov 2015	1.174	Jan 2017	1.280	Jan 2018	-		1.280	Continuing	Continuing	Continuing
Subtotal			14.628	4.591		5.289		5.480		-		5.480	-	-	-
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
TENCAP Core (Focus) Areas	Various	Multiple : Multiple	2.089	5.220	Dec 2015	3.782	Jan 2017	7.400	Jan 2018	-		7.400	Continuing	Continuing	0.000
Air Vigilance	MIPR	Classified : MIPR	2.728	0.515	Nov 2015	0.530	Jan 2017	5.802	Jan 2018	-		5.802	Continuing	Continuing	Continuing
AMDAS/ADV	MIPR	Classified : MIPR	3.500	4.004	Jan 2016	4.091	Jan 2017	6.095	Jan 2018	-		6.095	Continuing	Continuing	Continuing
Subtotal			8.317	9.739		8.403		19.297		-		19.297	-	-	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prgm Mgmt-Dir Gov,travel,etc.	Allot	Army TENCAP : Alexandria, VA	8.349	2.156	Oct 2015	1.150	Jan 2017	2.076	Jan 2018	-		2.076	Continuing	Continuing	Continuing
Secured Facilities	MIPR	Army Geospatial : Ft. Belvoir, VA	1.568	0.656	Dec 2015	0.423	Jan 2017	0.455	Jan 2018	-		0.455	Continuing	Continuing	Continuing
Subtotal			9.917	2.812		1.573		2.531		-		2.531	-	-	-

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Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost		Cost To Complete	Total Cost	Target Value of Contract
Lab Tests, Exercises, Simulations	MIPR	Multiple : Multiple	0.500	0.420	Dec 2015	0.465	Jan 2017	0.425	Jan 2018	-		0.425		Continuing	Continuing	Continuing
Subtotal			0.500	0.420		0.465		0.425		-		0.425		-	-	-

	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	33.362	17.562	15.730	27.733	-	27.733	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Army												Date: May 2017																							
Appropriation/Budget Activity												R-1 Program Element (Number/Name)												Project (Number/Name)											
2040 / 4												PE 0603766A / Tactical Electronic Surveillance System - Adv Dev												907 / Tactical Exploitation Of National Capabilities-MIP											
Event Name	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022										
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
CORE Cross-Agency Advanced Development and Engineering	<div>Development with Nat Intel Community</div>																																		
(1) TENCAP General Officer Steering Group (TGOSG) - annual - guides																																			
(2) TENCAP General Officer Steering Group (TGOSG) - annual - guides																																			
(3) TENCAP General Officer Steering Group (TGOSG) - annual - guides																																			
(4) TENCAP General Officer Steering Group (TGOSG) - annual - guides																																			
(5) TENCAP General Officer Steering Group (TGOSG) - annual - guides																																			
(6) TENCAP General Officer Steering Group (TGOSG) - annual - guides																																			
(7) TENCAP General Officer Steering Group (TGOSG) - annual - guides																																			
ADV Advanced Development and Engineering																																			
AMDAS Next Studies																																			
AMDAS Next Antenna Development																																			
AMDAS Next Ground Processor Development																																			
Air Vigilance Advanced Development and System prototype efforts																																			

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Army			Date: May 2017
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603766A / <i>Tactical Electronic Surveillance System - Adv Dev</i>	Project (Number/Name) 907 / <i>Tactical Exploitation Of National Capabilities-MIP</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CORE Cross-Agency Advanced Development and Engineering	4	2006	1	2023
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY19-23 POM	4	2016	4	2016
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY20-24 POM	4	2017	4	2017
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY21-25 POM	4	2018	4	2018
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY22-26 POM	4	2019	4	2019
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY23-27 POM	4	2020	4	2020
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY24-28 POM	4	2021	4	2021
TENCAP General Officer Steering Group (TGOSG) - annual - guides FY25-29 POM	4	2022	4	2022
ADV Advanced Development and Engineering	2	2015	1	2023
AMDAS Next Studies	2	2015	1	2019
AMDAS Next Antenna Development	2	2017	1	2020
AMDAS Next Ground Processor Development	2	2018	1	2021
Air Vigilance Advanced Development and System prototype efforts	3	2013	1	2023